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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,190

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Achim Grefenstein

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CONNOLLY BOVE LODGE & HUTZ LLP
1875 EYE STREET, N.W.
SUITE 1100
WASHINGTON, DC 20006

EXAMINER

KRUER, KEVIN R

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,190	Applicant(s) GREFENSTEIN ET AL.	
	Examiner KEVIN R. KRUER	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on December 29 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12, 15-17, 19, 20, 25 and 28-31 is/are pending in the application.
- 4a) Of the above claim(s) 19, 20, 25 and 28-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12 and 15-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. The inventions of original claims 12, 13, 15-21, 23, 25, 26, and 28-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on February 9, 2007.

The examiner notes claim 12 has been amended to incorporate the limitations of claim 14. Furthermore, claims 15-17 have the same scope as original claims 22, 24, and 27.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The rejection of claims 14, 22, 24, and 27 under 35 U.S.C. 103(a) as being unpatentable over in view of Gaggar et al (US 7,135,233) in view of WO 2001/083574 (herein referred to as "Breulmann") has been overcome by argument. US 7,135,233 is not available as prior art against the pending claims.

4. Claims 12, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thormann et al (US 6,510,266) in view of Queisser (US 2001/006996) and WO 2001/083574 (herein referred to as "Breulmann").

Thormann teaches a laminate comprising an ABS core layer and two ASA skin layers (col 6, lines 56+). The laminate comprises 40-70vol% ABS core (col 7, lines 15+).

Thormann teaches the claimed laminate should comprise ASA outer layers but does not teach methyl-styrene should be used in place of the styrene. However, Queisser teaches the heat resistance of such copolymers may be improved by substituting styrene with methyl-styrene (005). Thus, it would have been obvious to the skilled artisan at the time the invention was made to replace the styrene of the ASA outer layer of Thormann with methyl-styrene in order to improve the heat resistance of the laminate.

Thormann teaches ABS should be used as the core layer but does not teach said ABS layer should comprise the claimed "substrate layer" composition. However, Breulmann teaches a composition that has better notch impact resistance, toughness, penetration energy, and flowability, than ABS (008 and 002). The graft copolymer molding composition comprises:

a1: from 10 to 90% by weight of a particulate graft base A1, made from a particulate emulsion polymer with a glass transition temperature below 0°C made from

all: from 70 to 100% by weight of butadiene or of at least one C1.8-alkyl acrylate, or of mixtures of these, as component A11,

a12: from 0 to 20% by weight of at least one polyfunctional crosslinking monomer, as component A12,

a13: from 0 to 30% by weight of other copolymerizable monomers, as component A13, the total amount of these being 100% by weight,

a2: from 10 to 90% by weight of a graft A2 made from the following monomers, the amounts being based on A2,

a21: from 60 to 100% by weight of at least one vinylaromatic monomer, or of a (meth)acrylic ester or of mixtures of these, as component A21, and

a22: from 0 to 40% by weight of at least one ethylenically unsaturated monomer, as component A22,

has a median particle diameter of from 130 to 500 nm and has polymodal particle size distribution in which less than 40% by weight of the particles are present in any particle size range of width 50 nm (abstract). The composition further comprises component B which comprises 60-100% by weight of vinylaromatic monomers and 0-40% by weight of an ethylenically unsaturated monomer, preferably of acrylonitrile or methyl methacrylate (0068-0070). Thus, it would have been obvious to utilize the composition taught in Breulmann in place of the ABS layer taught in Thormann in order to improve the impact resistance, mechanical properties, toughness, and flowability of core layer.

With regards to claim 16, Thormann does not teach the claimed thickness. However, it would have been obvious to the skilled artisan to vary the thickness of the composite sheet according to the desired end use of the product.

With regards to claim 17, the properties claimed therein are understood to be inherent to the composition taught by Thormann in view of Queisser and Breulmann since said composition/laminate is compositionally identical to the claimed invention.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thormann et al (US 6,510,266) in view of Queisser (US 2001/006996) and WO 2001/083574 (herein referred to as "Breulmann"), as applied to claims above, and further in view of Ouhadi et al (WO 01/55257).

Thormann in view of Queisser and Breulmann is relied upon as above but does not teach the claimed styrene copolymer intermediate layer. However, Ouhadi teaches an adhesive which is useful between moldings of ASA and ABS. Said adhesive comprises a styrene copolymer (abstract). Thus, it would have been obvious to the skilled artisan to utilize the adhesive taught in Ouhadi between the ASA and ABS layers taught in Thormann. The motivation for doing so would have been to improve the adhesion between said layers.

Response to Arguments

Applicant's arguments filed December 29, 2008 have been fully considered but they are moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN R. KRUEER whose telephone number is (571)272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin R Kruer/
Primary Examiner, Art Unit 1794